R3G140-AV03-02

EC centrifugal fan

forward curved, single inlet



ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**R3G140-AV03-02**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		-
Speed	min^{-1}	1800
Power input	W	66
Current draw	A	0.5
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

EC centrifugal fan

forward curved, single inlet

Technical features

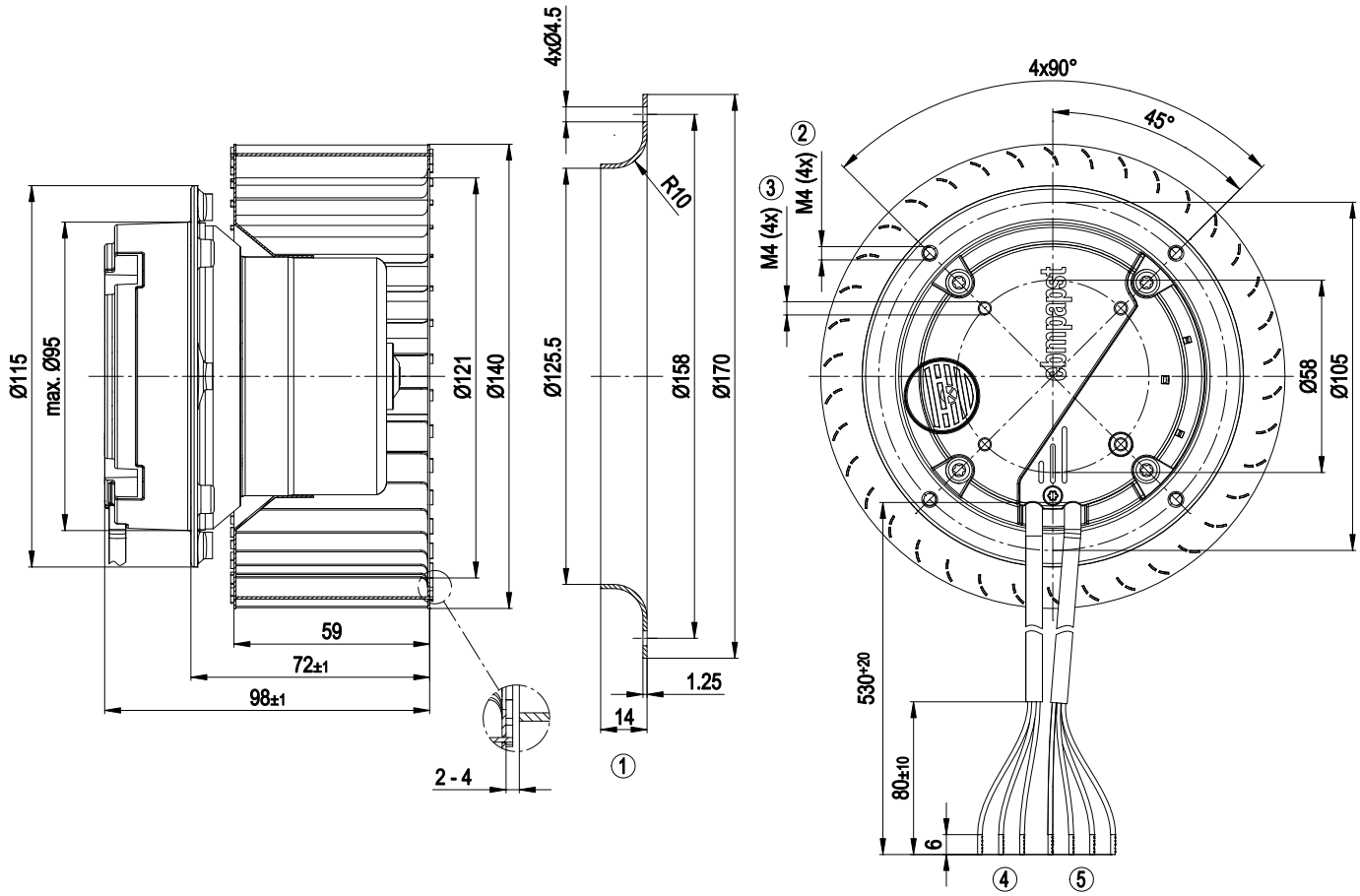
Mass	1.24 kg
Size	140 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	Sheet steel, galvanised
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	CCC; GOST

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan

forward curved, single inlet

Product drawing



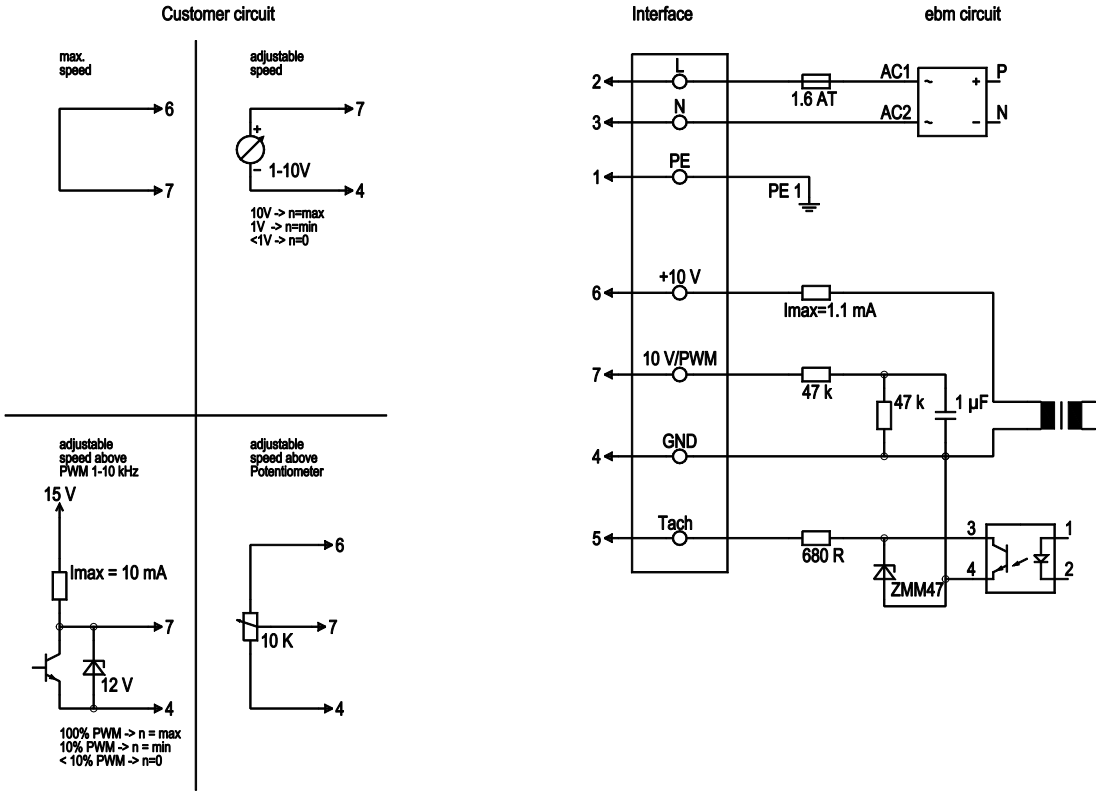
1	Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery
2	Depth of screw max. 6 mm
3	Depth of screw max. 6 mm
4	Connection line PVC 3G 0.5 mm², 3 x brass lead tips crimped
5	Connection line PVC 4 x 0.25 mm²; 4 x brass lead tips crimped

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan

forward curved, single inlet

Connection screen



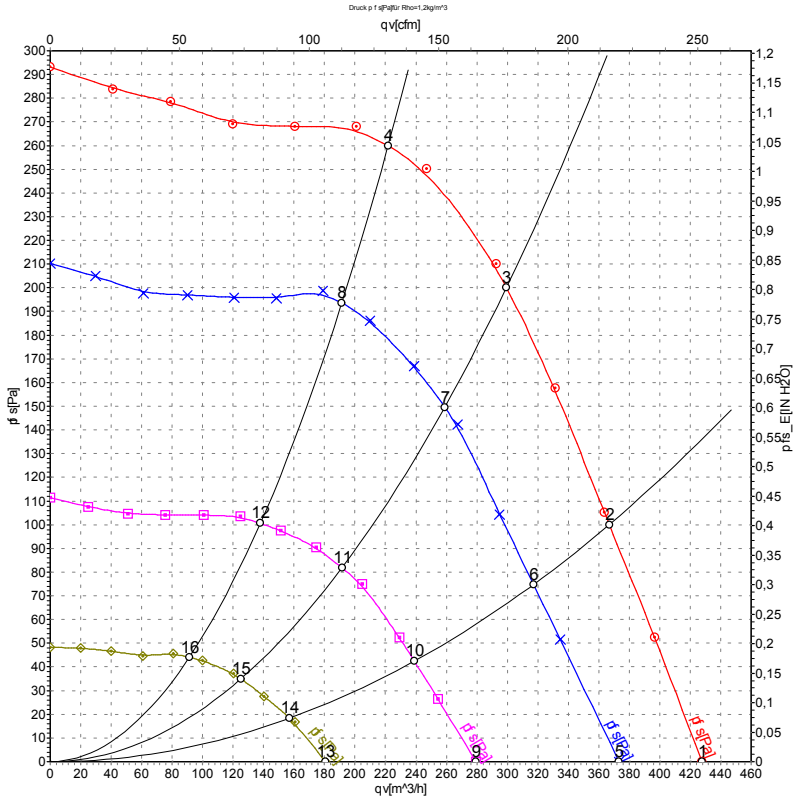
Line	No.	Signal	Colour	Function / assignment
1	1	PE	green/yellow	Protective earth
1	2	L	brown	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
1	3	N	blue	Neutral conductor
2	4	GND	blue	GND - Connection for control interface
2	5	Tach	white	Tach output: Open Collector, 1 pulse per revolution, electrically isolated
2	6	10V	red	max. 1.1 mA, voltage output 10 V/1.1 mA, electrically isolated, not short-circuit-proof
2	7	0-10 V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan

forward curved, single inlet

Charts: Air flow 50 Hz



Measurement: LU-65700
Measurement: LU-117046
Measurement: LU-117047
Measurement: LU-117050

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_{ed}	I	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	1800	66	0.50	430	0
2	230	50	1855	59	0.43	365	100
3	230	50	1960	50	0.36	300	200
4	230	50	2075	42	0.31	220	260
5	230	50	1580	46	0.35	375	0
6	230	50	1630	40	0.30	315	75
7	230	50	1710	34	0.26	260	150
8	230	50	1780	27	0.21	190	194
9	230	50	1195	22	0.17	280	0
10	230	50	1220	18	0.14	240	42
11	230	50	1265	16	0.13	190	82
12	230	50	1305	13	0.11	140	101
13	230	50	810	9.0	0.08	180	0
14	230	50	830	8.1	0.07	155	19
15	230	50	845	6.9	0.07	125	35
16	230	50	890	6.4	0.06	90	44

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com